

US009008633B2

# (12) United States Patent

Varoglu et al.

# (10) Patent No.: US 9,008,633 B2

(45) **Date of Patent:** Apr. 14, 2015

#### (54) METHODS TO DETERMINE AVAILABILITY OF USER BASED ON MOBILE PHONE STATUS

 $(75) \quad \text{Inventors:} \quad \textbf{Devrim Varoglu}, \, \text{Santa Clara, CA (US)};$ 

Swapnil R. Dave, Santa Clara, CA (US)

(73) Assignee: **Apple Inc.**, Cupertino, CA (US)

(\*) Notice: Subject to any disclaimer, the term of this

patent is extended or adjusted under 35 LLS C 154(b) by 383 days

U.S.C. 154(b) by 383 days.

(21) Appl. No.: 13/399,801

(22) Filed: Feb. 17, 2012

(65) Prior Publication Data

US 2013/0217364 A1 Aug. 22, 2013

(51) Int. Cl.

#04W 4/16 (2009.01)

#04L 29/08 (2006.01)

#04M 1/2745 (2006.01)

#04M 1/56 (2006.01)

#04W 1/725 (2006.01)

#04W 4/02 (2009.01)

(52) U.S. Cl.

CPC ....... *H04L 67/24* (2013.01); *H04M 1/274508* (2013.01); *H04M 1/56* (2013.01); *H04M* 1/72519 (2013.01); *H04M 1/72563* (2013.01); *H04W 4/02* (2013.01)

### (58) Field of Classification Search

#### (56) References Cited

#### U.S. PATENT DOCUMENTS

6,323,846	B1	11/2001	Westerman et al.
6,570,557	B1	5/2003	Westerman et al.
6,671,508	B1	12/2003	Mitsuoka et al.
6,677,932	B1	1/2004	Westerman
6,888,536	B2	5/2005	Westerman et al.
7,139,554	B2	11/2006	Litwin, Jr.
7,330,721	B2	2/2008	Bhatia et al.
7,542,558	B2	6/2009	Klein et al.
2012/0032891	A1*	2/2012	Parivar 345/1
2012/0077479	A1*	3/2012	Sabotta et al 455/4

#### FOREIGN PATENT DOCUMENTS

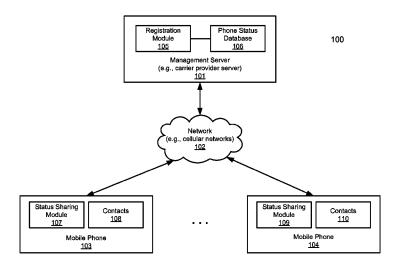
WO WO 01/91486 A1 11/2001

Primary Examiner — Phuoc H Doan (74) Attorney, Agent, or Firm — Meyertons, Hood, Kivlin, Kowert & Goetzel. P.C.

#### (57) ABSTRACT

A command is received at an operating system of a first mobile phone for displaying contact information of a remote user having a mobile phone number of a second mobile phone. In response to the command, a request is transmitted to a remote server from the first mobile phone over a cellular network requesting an operating status of the second mobile phone. The operating status of the second mobile phone is received from the remote server over the cellular network. The operating status of the second mobile phone is displayed on a display of the first mobile phone as a part of contact information of the remote user associated with the second mobile phone, where the operating status includes current locality of the second mobile phone.

## 21 Claims, 10 Drawing Sheets



<sup>\*</sup> cited by examiner